



# **Erosion and Sediment Control for Inspectors Course**



## Ground Rules

- **Keep cell phones off during the training**
- **Questions and comments are encouraged**
- **Everyone will have an opportunity to speak and share their thoughts at the appropriate times**
- **Be supportive of all participants**



# Agenda

8:30 – 9:15	Module 1 – Course Overview and Introduction
9:15 – 10:00	Module 2 – The Virginia Erosion and Sediment Control Law and Regulations for Inspectors
10:00 – 10:15	Break
10:15 – 12:00	Module 3 – Erosion and Sediment Control Measures
12:00 – 1:00	Lunch
1:00 – 2:15	Module 3 – Continued
2:15 – 2:30	Break
2:30 – 4:00	Module 4 – Inspection/Trouble Shooting Exercise

# Module 1.



## Course Overview and Introduction



## A little refresher



# Why Erosion and Sediment Control?

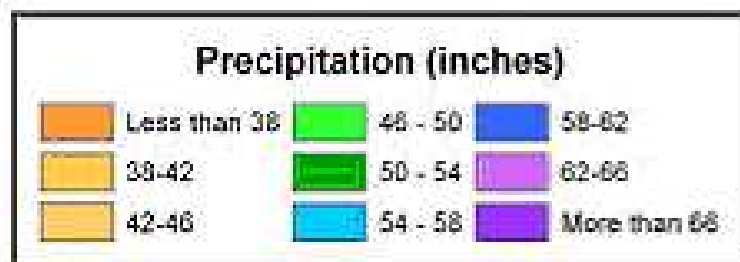
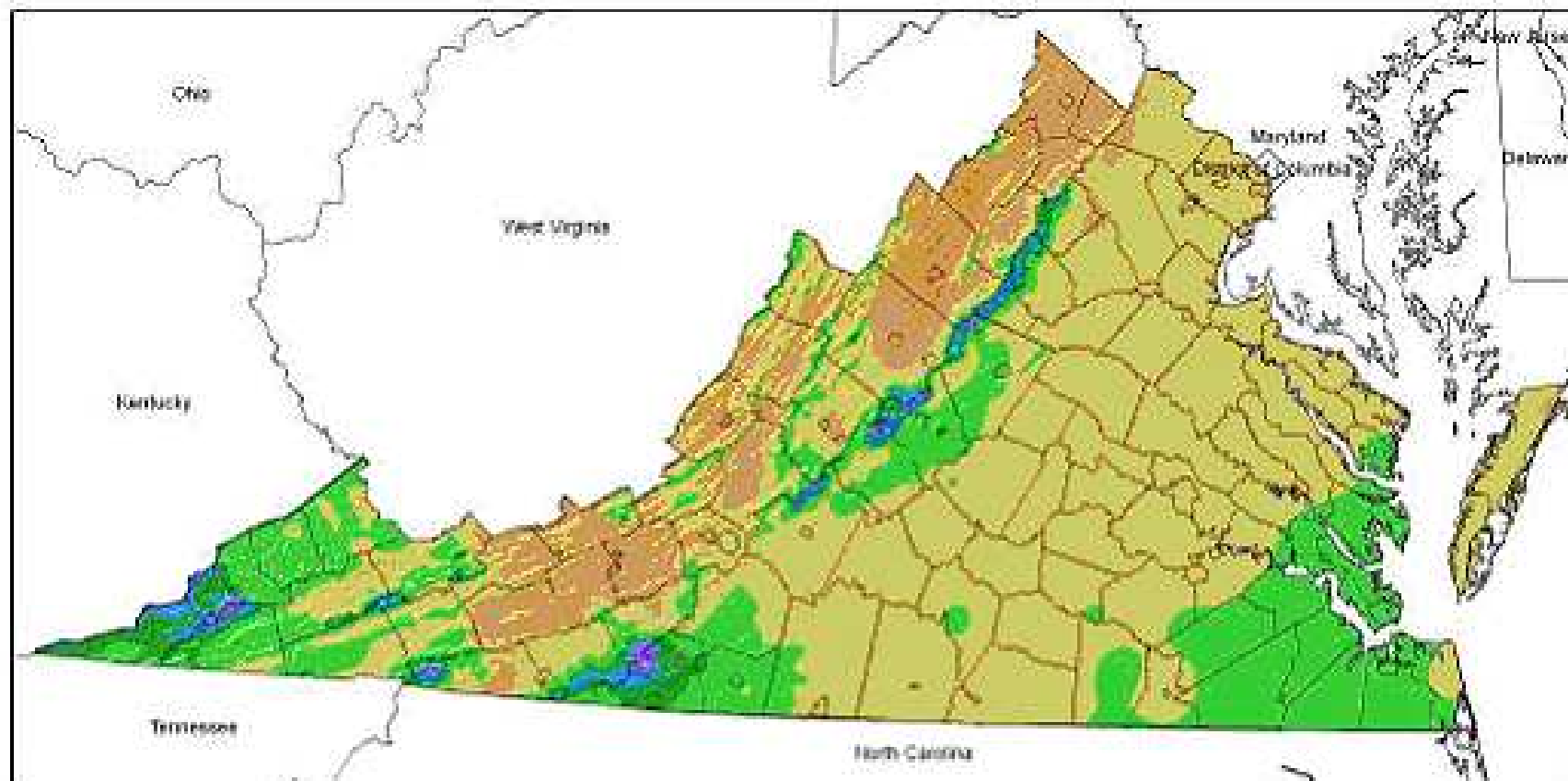
Law requires the *“effective control of soil erosion, sediment deposition, and nonagricultural runoff .... to prevent the unreasonable degradation of property, stream channels, waters and other natural resources.”*

Protect down-gradient properties from damage due to:

- a) Sediment deposition
- b) Damage due to increases in volume, velocity and peak flow rate





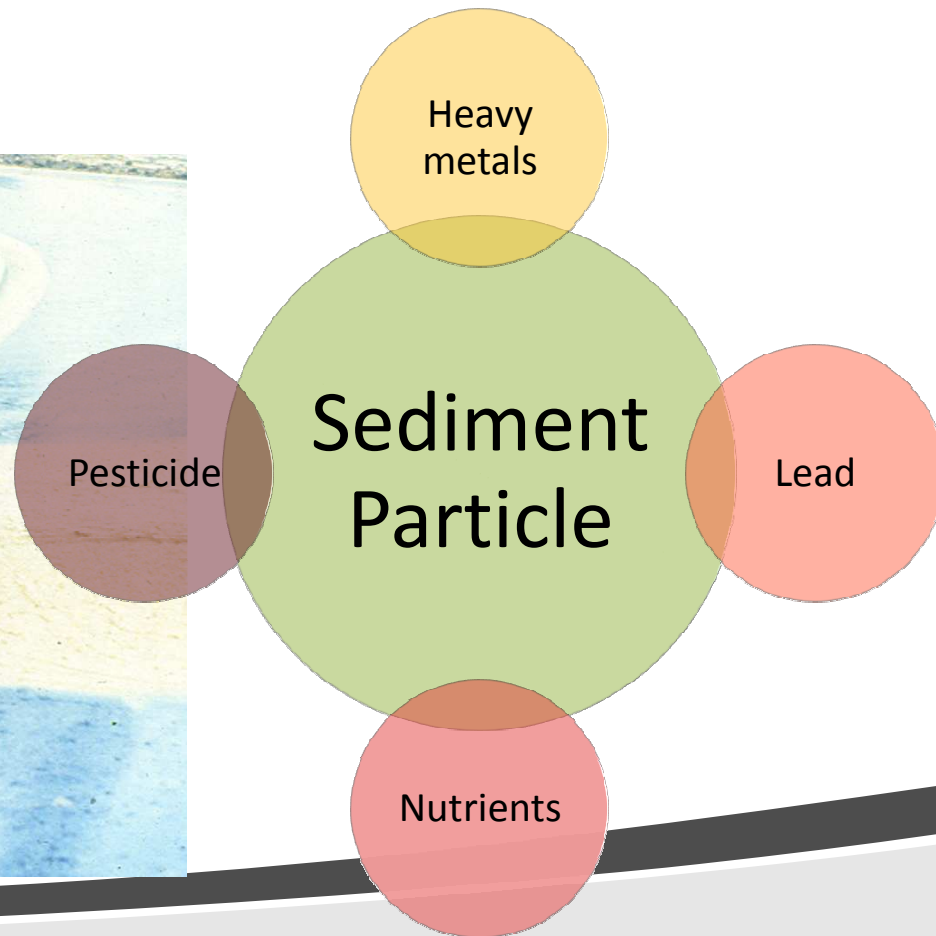


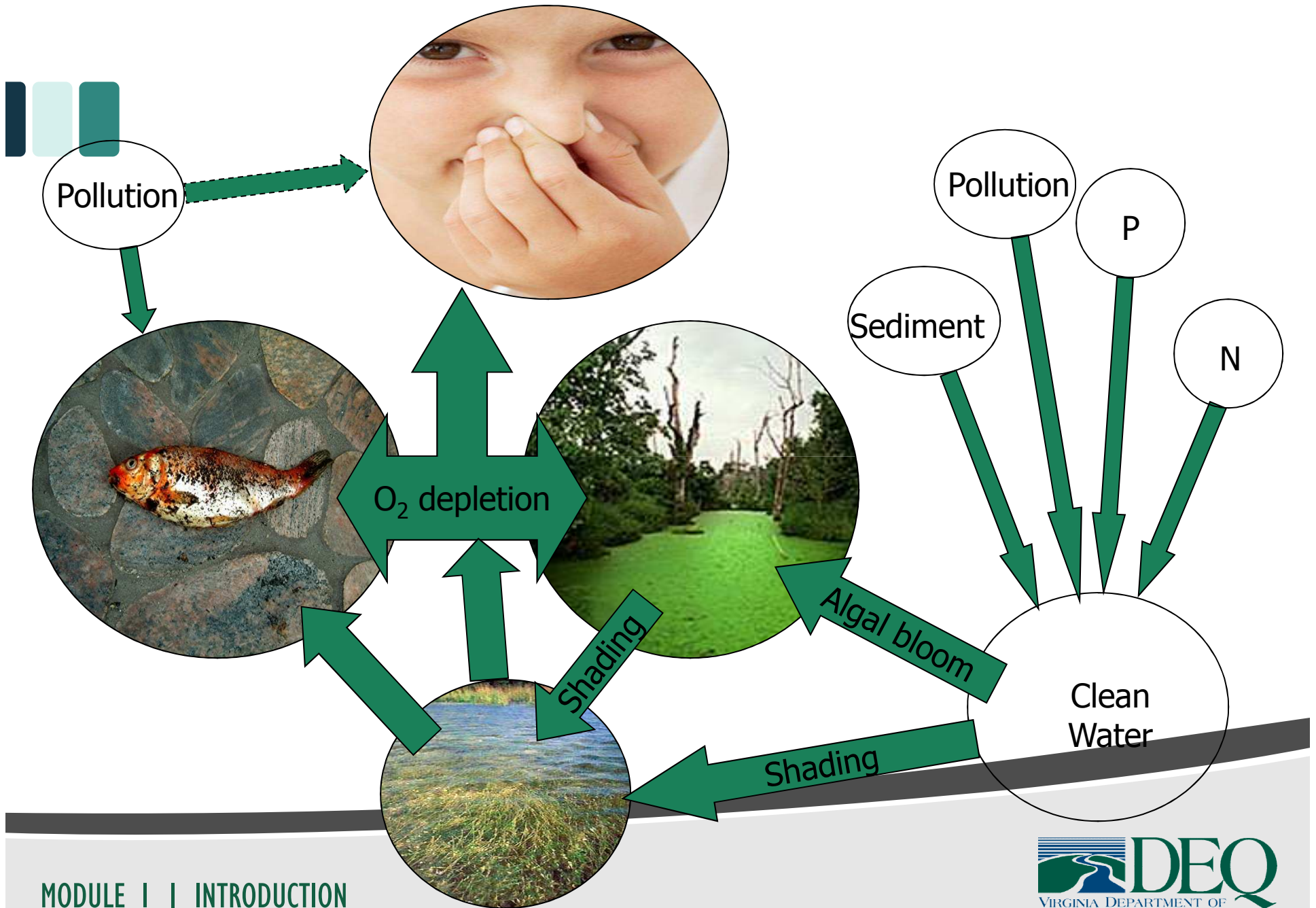
Map copyright (c) 2006 by the PRISM Group and Oregon Climate Service, Oregon State University.





# Sediment particles have all kinds of chemical compounds stuck to them





# Stream Impacts



## High Stormwater Volume and Velocity

- More impervious surfaces lead to less ground infiltration, more higher energy runoff
- Increased stream volumes and flow rates, flooding, more erosion



## Pollutants in Stormwater Runoff

- Pollutants transported untreated to our waterways (nutrients, sediments, toxics, litter, debris, bacteria and pathogens, higher water temps)



## Ecological Impacts

- Altered or lost habitats (aquatic, riparian)
- Reduced species richness and diversity
- Shift in ecological balance (aquatic food sources, opportunistic species)



## Loss of Beneficial Uses

- Reduction in desirable fish species
- Shellfish contamination
- Contamination of drinking water sources
- Contamination of swimming beaches
- Loss of recreation and aesthetic value of state waters

# Principles of Erosion & Sediment Control

**Erosion Control** - first line of defense.

“If there is no erosion, there can be no sediment.”

- Prevents damages associated with both erosion and sediment control
- The only practical approach in some instances (e.g., very fine sediments)





# ■ ■ ■ Principles of Erosion & Sediment Control

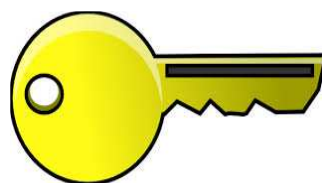
**Sediment Control** - backup for erosion control measures;  
second line of defense.

Coordination of erosion control, sediment control and management of stormwater leaving the site is necessary for a well-integrated program



# Inspections

Inspections are the key to  
an effective ESC Program!



VESCL

VESCR

VESCH

Local  
Ordinance





# Inspection Program

- Without an effective inspection program the other elements become meaningless
- Soil conservation is accomplished through the effective ESC measures implemented on the project



# The Inspector

Technical Expertise

Should believe in the goals  
of the Erosion and  
Sediment Control Program

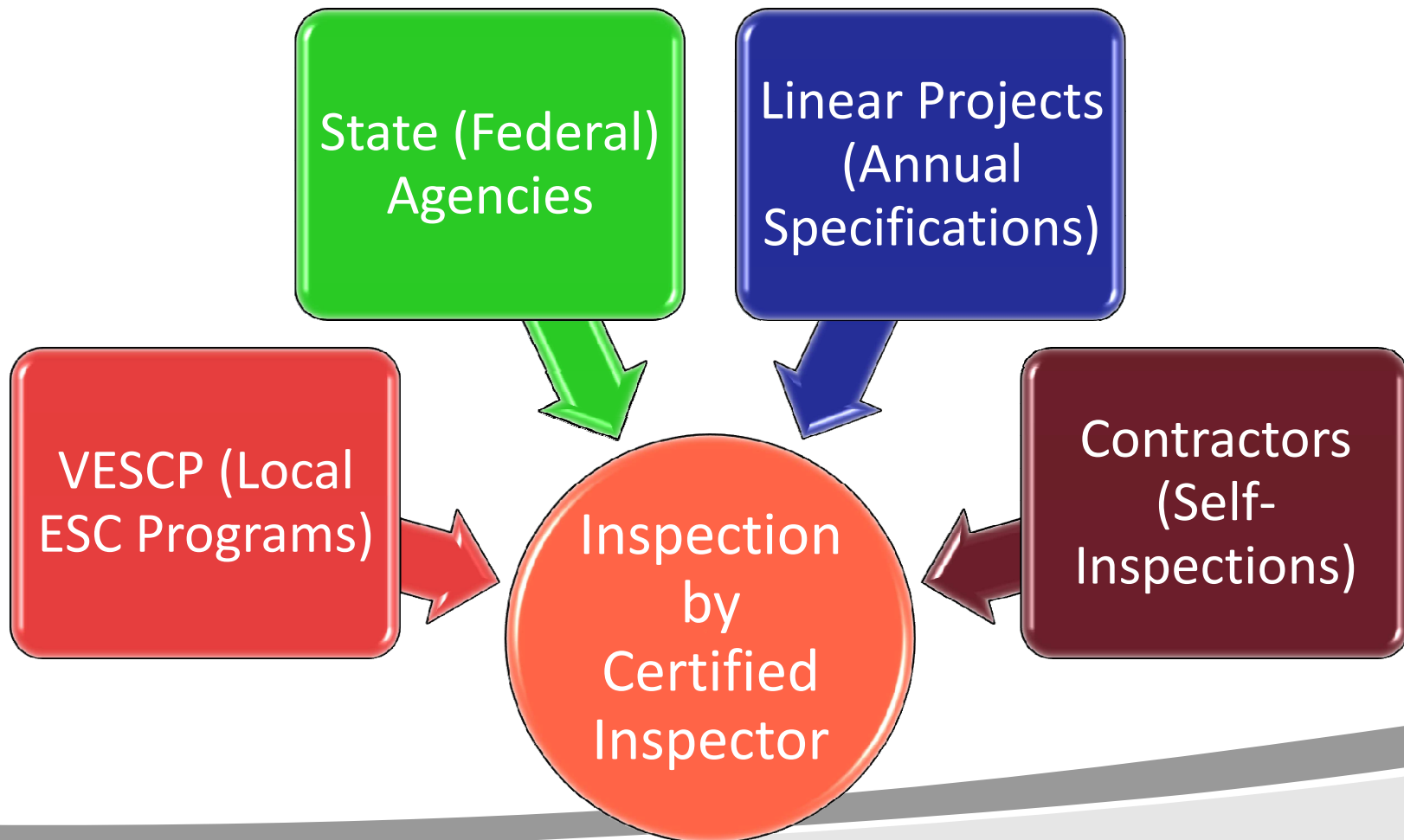
**Inspector must be  
certified**

Knowledgeable of other  
water related regulatory  
programs (state and federal)

Understanding of  
stormwater related  
environmental issues



# Who needs certified inspectors?





# Training and Certification

- The VESCL § 62.1-44.15:53 requires individuals working in a VESCP who perform certain duties to hold a certificate of competence
- The certificate of competence is issued to individuals who successfully pass the examination for a certain classification
- The DEQ training and certification program has two areas in which certificates are issued:
  - Erosion and Sediment Control
  - Stormwater Management



# Erosion and Sediment Control Exam Eligibility Training (9VAC25-850)

Program  
Administrator



ESC 2-day  
Basic

Inspector



ESC 2-day  
Basic



ESC 1-day  
Inspector

Plan Reviewer



ESC 2-day  
Basic



ESC 2-day  
Plan Reviewer

Combined  
Administrator



ESC 2-day  
Basic



ESC 1-day  
Inspector



2-day  
ESC Plan  
Reviewer



# Stormwater Management Exam Eligibility Training (9VAC25-850)

Program Administrator	=	SWM 2-day Basic				
Inspector	=	SWM 2-day Basic	+	SWM 1-day Inspector		
Plan Reviewer	=	SWM 2-day Basic	+	SWM 2-day Plan Reviewer		
Combined Administrator	=	SWM 2-day Basic	+	SWM 1-day Inspector	+	2- day SWM Plan Reviewer





## Dual certificates (9VAC25-850)

**ESC Program  
Administrator**



**SWM Program  
Administrator**



**Dual Program  
Administrator**

**ESC Inspector**



**SWM Inspector**



**Dual Inspector**

**ESC Plan Reviewer**



**SWM Plan Reviewer**



**Dual Plan Reviewer**

**ESC Combined  
Administrator**



**SWM Combined  
Program  
Administrator**



**Dual Combined Program  
Administrator**

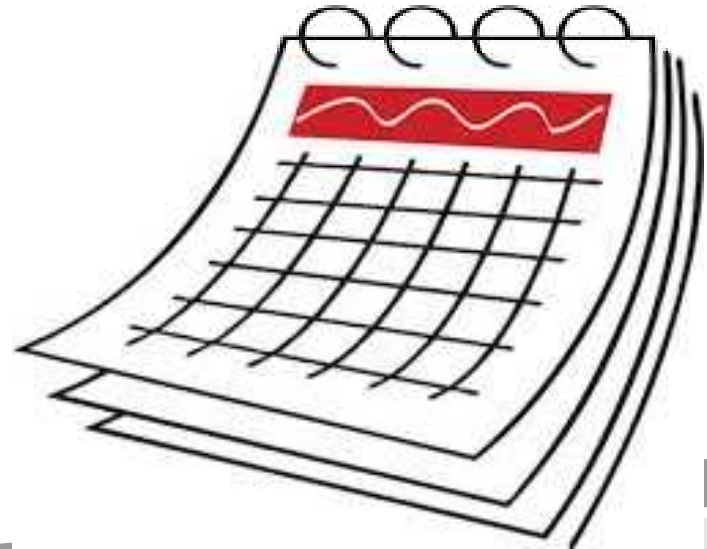


**The other path to obtaining a certificate of competence is through work experience**

- **Minimum 800 hours**
- **Verified when you apply for exam**

# “Provisional” Certification (9VAC25-850-50)

- 12 months to complete training
- 12 months from completion of training to obtain certificate of competence





# The Exam

- Open book
- You will be notified of what reference material you are allowed to bring
- Typically, the DEQ handbooks (ESC or SWM) and participant guides from your courses are adequate
- No loose papers or practice quizzes!



# The Exam-What can I bring?

- **Allowed Items**
- Three 3-ring binders
- Reference materials (see page 5)
- Dividers (any type)
- Sticky tabs (any type)



# The Exam-What can I bring?

- **Allowed**
- Handwritten notes on reference materials
- Handwritten notes on dividers
- Handwritten headings on sticky tabs
- Highlighted reference materials
- Typed table of contents/index  
(Created by candidate)



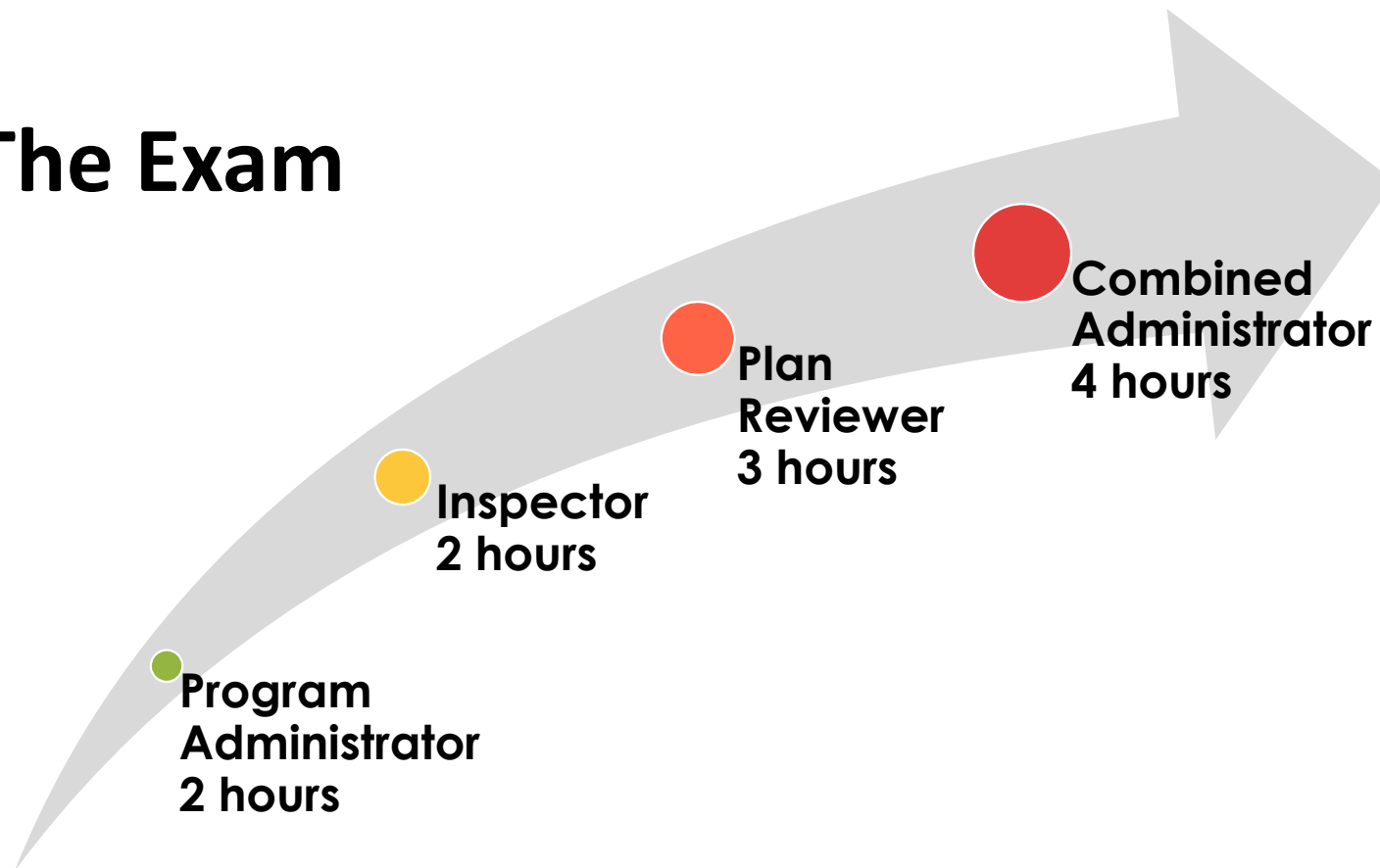


# The Exam-What can I bring?

- **NOT Allowed**
- Loose paper
- Handwritten notes on separate paper
- Typed notes
- Practice quizzes
- PowerPoint presentations



## The Exam



**You do not have time to look up all the answers!**

**Come prepared**

**Come rested**

**Come comfortable**



## Did I Pass?



- You will be notified of your exam results
- If you fail the exam, you will be eligible to take it again up to one year without submitting an additional application
- Exam re-takes are NOT free
- You must get a minimum of 70% to pass



# Maintaining your Certificate and Re-certification




- Certificates valid for three years
- Re-certify before the expiration date
- How to re-certify:
  - Re-take the exam before the expiration date on your current certificate
  - Attend the DEQ training courses required for your individual certificate
  - Complete the required amount of contact or CEU hours




## PE's (9VAC25-850-50)

- **ESC**
  - Automatically certified as ESC Plan Reviewers
  - Not automatically certified as ESC Inspector or ESC Program Administrator
- **SWM**
  - Not automatically certified for any classification
- **Re-certification**
  - Re-certify by valid license and fee

# www.deq.virginia.gov/connectwithdeq/ trainingcertification.aspx

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## Training & Certification

### Provisional Certification

Individuals seeking Stormwater Management or Erosion & Sediment Control certification are considered provisionally certified if they are enrolled in a DEQ training class and complete training within 12 months. To become fully certified, people must obtain a passing score on a certification exam within 12 months of completing the required training. (9VAC25-850-50 A 2)

### Course Enrollment Procedure

Individuals wishing to complete a DEQ training class in Erosion & Sediment Control or Stormwater Management can enroll in a class through the [Knowledge Center \(KC\)](#). In order to use the KC you must *first* create a user profile.

### KC Instructions

Please see "how to create your KC profile" instructions below in pdf format. Note: any company that wishes to enroll workers on their behalf can also do

### Featured Items

- Training Notification Sign-up
- SWM & ESC Law and Regs
- Certification Exam Information
- Work Experience Form
- Certification Search Tool
- Frequently Asked Questions
- Additional Learning Resources

### Stormwater Management

- SWM Training Information
- SWM Basic Materials
- SWM Guidance
- Construction Gen'l Permit
- Local VSMP Program
- MS4 Permit Program
- Stormwater Mgmt & VEEP

### Technical Links



# [www.deq.virginia.gov/ConnectWithDEQ/TrainingCertification/ExamInformation.aspx](http://www.deq.virginia.gov/ConnectWithDEQ/TrainingCertification/ExamInformation.aspx)

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## Virginia Department of Environmental Quality

P.O. Box 1105  
Richmond, VA 23218

### Contact Us:

1-(804) 698-4000  
1-800-592-5482 (Toll Free in VA)

View Department of  
Environmental Quality  
Expenses



## Examination Information

DEQ has enlisted the services of a professional examination company called [Pearson Vue](#) to manage exams for Virginia's Erosion & Sediment Control and Stormwater Management programs.

All information on the exam is outlined in the **Candidate Information Booklet (CIB)**.

### Before Taking Your Exam

- Carefully read the **Candidate Information Booklet (CIB)** located on [Pearson's exam website](#)
- Bring copies of your Training Completion Certificate(s).
- Only bring allowable material, as identified in the Candidate Information Booklet (CIB).
- Place all allowable exam materials in a 3 ring binder (note: use no more than three binders).
- Prepare for your exam by studying the allowable materials as outlined in the CIB.

[Take me to Pearson Exam Website](#)

### Printing Training Completion Certificates

If you attended training through DEQ you can print completion certificates from the Knowledge Center, as follows:

1. Login to the [Knowledge Center](#)
2. Click on "My Workspace" / "My Transcript"
3. Click "SWM or ESC Course Name"
4. Click "View Certificate" (this will open a pdf file that you can print).

VA Dept of Environmental Quality Testing Services with Pearson VUE - Windows Internet Explorer provided by VA IT Infrastructure

http://www.pearsonvue.com/va/deq/

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## VA Dept of Environmental Quality Certification Testing

This page contains specific exam information about the Department of Environmental Quality's Erosion and Sediment Control and Stormwater Management certification programs. From this page you can locate a test center, schedule your examination, and download the candidate information booklet and exam information/forms.

### Examination Scheduling Information

Please **VERIFY** that your name and personal information are **CORRECT**. Contact Pearson VUE immediately to correct the spelling of your name or update your personal information if you notice any errors. It is very important that this information is correct, as it will appear as it was entered on the documentation provided to you after you have completed the exam, as well as on any reports to your licensing agency.

Appointments may be made up to one calendar day prior to the day you wish to test, subject to availability. Pearson VUE offers the following scheduling options:

[Schedule Online](#) [Schedule By Phone](#)

### Downloads

- [Candidate Information Booklet](#) (1.6 MB pdf)  
*The Candidate Booklet is the most comprehensive resource for prospective licensees.*
- [Content Outlines](#) (76 KB pdf)
- [ESL Accommodation Request Form](#) (46 KB pdf)

### DEQ

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Last updated 2014-05-05



**For further questions regarding training and certification, please look at our FAQ which can be found on the DEQ website:**

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WithDEQ/TrainingCertification.aspx](http://www.deq.virginia.gov/ConnectWithDEQ/TrainingCertification.aspx)**